Moving EMS Forward

The District of Columbia
Department of Health
Division of Emergency Medical Services
2010 Report

The Emergency Medical Service Division
Health Emergency Preparedness and Response Administration
District of Columbia Department of Health

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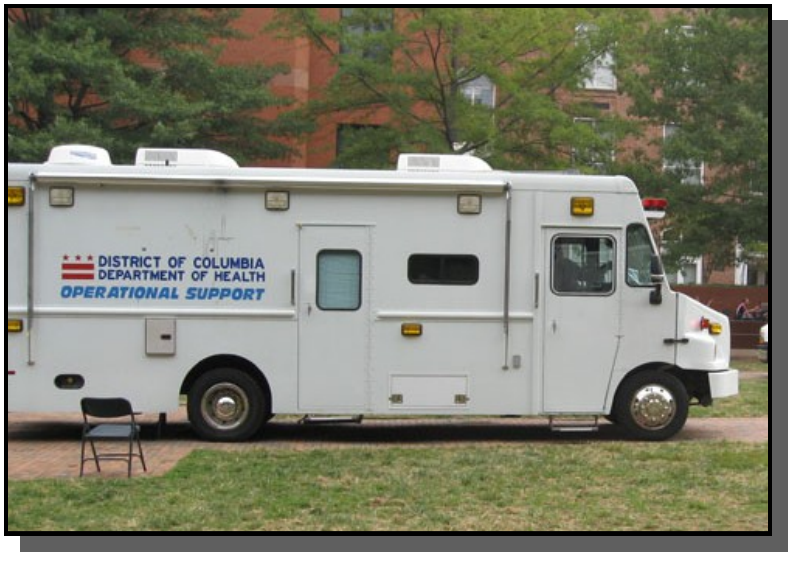

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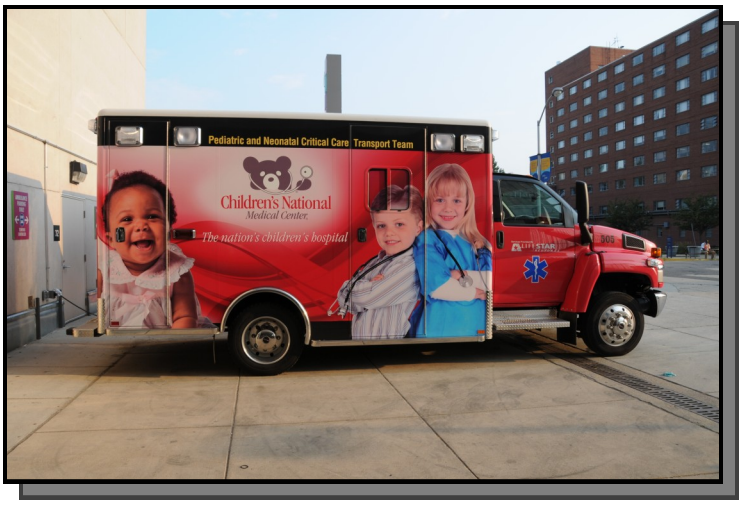


Pictures provided by Children's Medical Transport Services, the Emergency Medical Response Group at George Washington University, and the Georgetown Emergency Response Medical Service at Georgetown University.

Cover photo from http://www.thewedistrict.com/cafritz-awards-for-dc-government-employees/

Overview of EMS in the District of Columbia

The District of Columbia's Emergency Medical System (EMS) operates in a coordinated partnership among various organizations to provide high quality pre-hospital medical care to eight acute care hospitals in the District of Columbia.

Basic Life Support (BLS) services are provided by every EMS ambulance service in the District. These providers, certified as Emergency Medical Technicians (EMT), provide a number of life saving techniques. They are capable of providing non-invasive care such as oxygen administration, stabilization of fractures, protection of the cervical spine, perform CPR and utilize AEDs. In the District, the EMT is the most prolific EMS provider, making up nearly 82% of all certified EMS providers in the District.

Advanced Life Support (ALS) services are provided by several ambulance services and all of our helicopter services in the District. These providers, certified as Paramedics or EMT-Intermediates, can perform advanced, invasive procedures such as cardiac monitoring, intravenous (IV) cannulation, administer medications and insert advanced airway devices. They comprise the remaining 18% of our EMS providers.

In the District, 9-1-1 calls for emergency medical services are primarily responded to by the DC Fire & EMS Department (DC FEMS). The DC FEMS runs a mixed fleet of Basic and Advanced Life Support ambulances, as well as Emergency Medical Technician and Paramedic first responders. There are two university-based BLS providers; the Emergency Medical Response Group (EMeRG) at the George Washington University and Georgetown Emergency Response Medical System (GERMS) at Georgetown University.

There are several commercial ambulance services that provide both ALS and BLS services in the District. Their services are primarily used for inter-facility transports and special events.

Medical Reserve Corps (MRC) program is a volunteer based EMS service, created after President George W. Bush petitioned Americans to volunteer in support of their country, during his 2002 State of the Union Address. Overseen by the DC Department of Health (DOH), MRC is comprised of medical and public health professionals and others who support DC FEMS and medical facilities through staffing first aid stations during special events, including July 4th and presidential inaugurations or by responding to natural disasters and emergencies.

The Division of Emergency Medical Services

Mission
The EMS Division located within the Health Emergency Preparedness and Response Administration (HEPRA) of the DC DOH is the regulatory oversight authority for all EMS activities in the District of Columbia. The Division provides leadership to a comprehensive emergency care system of cooperative partnerships, certifies all emergency medical service providers, designates trauma centers and establishes the District-wide trauma system. In addition, the EMS Division, investigates complaints and may exercise its authority to deny, suspend or revoke the licensure of an emergency medical service trainer or provider who fails to meet set standards.

The EMS Division is dedicated to protecting the health, safety and welfare of the public, and helping to reduce death and disability. Through the continued development of an optimal system of emergency medical service instructors and providers, the result will be displayed in improved patient outcomes through delivery of the best pre-hospital treatment available.

Vision
The EMS Division strives to establish a unified, comprehensive and effective EMS system within the District of Columbia, ensuring that the District's EMS system is recognized as a leader in providing high quality patient care, that is a sought after role model, to help other EMS systems attain the same level of quality care. The EMS Division will do this by:

- Promoting excellence through district-wide regulations.
- Promoting healthy communities and encouraging community support.
- Providing value-added information for emergency preparedness, public health, EMS research and strategic governance.
- Developing and managing an organized repository of information, standards and guidelines for EMS providers.

Duties

- Certifying and inspecting ambulances for proper equipment and drug control.
- Reviewing curriculum materials and course outlines for training sites and continuing education units.
- Monitoring the emergency medical service providers' skills and knowledge through the use of the National Registry, cognitive and practical skills examinations.
- Providing technical assistance to hospitals, emergency medical service providers, local government agencies and others interested in emergency care.
- Developing a district-wide Trauma System through sophisticated hardware and software applications that track ambulance runs and patient encounter forms.

EMS Ambulance Services

Certified Ambulances

There are 150 certified ambulances in the District of Columbia, of those 117 are certified for BLS level care, with the remaining 33 certified for ALS level care.

All District ambulances met the Federal Manufacturing Star of Life Ambulance specifications (KKK-A-1822), at the time of construction. Ambulance service providers are responsible for maintaining their ambulances in accordance with District regulations. The EMS Division performs an annual certification inspection of all ambulances to ensure they meet the requirements of the regulations. Additionally, unannounced inspections are performed throughout the year to verify the ambulances are maintained properly. In Fiscal Year (FY) 2010, 278 ambulance inspections were performed.

EMS Ambulance Services

There are 12 ambulance services certified in the District of Columbia, categorized as:

9-1-1 Public Service Providers

- DC Fire & Emergency Medical Services Department

College Based Emergency Ambulance Services

- GERMS
- EMeRG

Hospital-Based Service Providers

- Children's Medical Transport Services (Ground ambulance)
  - STAT MedEvac (Air ambulance service for Children's National Medical Center)
- MedSTAR Transport Services (Ground and Air ambulances)

Commercial Ambulance Service Providers

- All American Ambulance (AAA)
- American Medical Response (AMR)
- Butler Medical Transport
- LifeStar Response
- Team Critical Care (TCC)

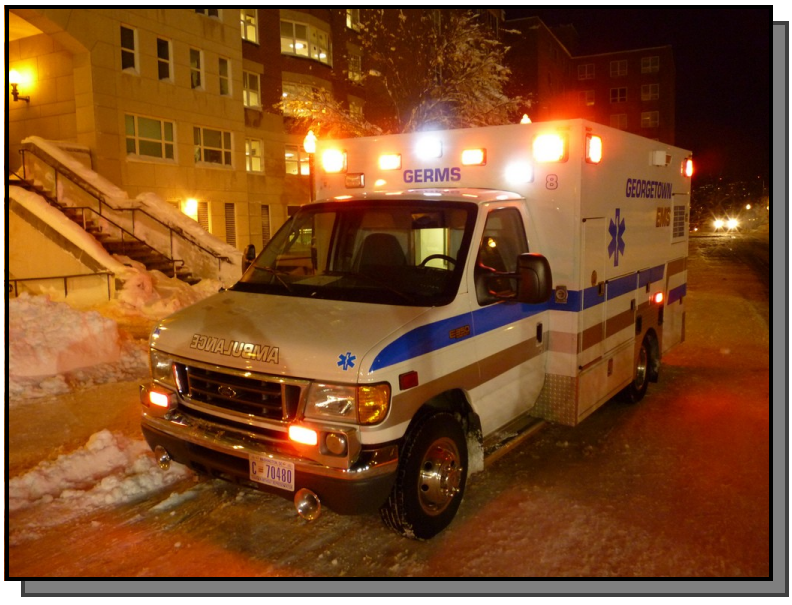
Special Events Service Providers

- Special Events Medical Services

EMS Incidents Summary

District Population*	601,723
Total Number of EMS Incidents:	163,103
Total Number of EMS Transports:	129,866
9-1-1 (DC Fire & EMS) EMS Incidents	128,933
9-1-1 (DC Fire & EMS) Transports	96,257
ALS Transports	27,185
BLS Transports	69,072
University Based EMS Incidents	1,493
University Based EMS Transports	1,004
Commercial Ambulance EMS Incidents	32,677
Commercial Ambulance EMS Transports	32,634
Children's Hospital Helicopter Transports	455
Pediatric Transports	323
Neonatal Transports	132

** US Census Bureau Statistics for the District of Columbia for 2010*



EMS Provider Certifications

National Registry of Emergency Medical Technician (NREMT)
NREMT is the nationally recognized certification and testing body for EMS providers. Students who successfully complete their course of study are eligible for NREMT certification, which is a requirement for certification in the District of Columbia.

The District of Columbia has a dedicated group of EMS providers who administer pre-hospital healthcare services on a daily basis. The EMS Division, raised its standards in 2009, requiring all EMS providers obtain NREMT certification at license renewal. By the end 2010, only 145 EMS providers needed their NREMT certification. Today every single DC certified EMS provider has obtained their NREMT certification.

In 2010, the educational institutions did well by challenging their students to take the NREMT exam. Since 2010, the District has consistently scored above the national average.

Report Group	First Attempt Pass	Cumulative Pass Within 3 Attempts	Cumulative Pass Within 6 Attempts
National	**68%**	**77%**	**78%**
District	**77%** (+9)	**87%** (+10)	**87%** (+9)

Results of Emergency Medical Technician certification exam.

In 2010, the District maintained 2,364 certified EMS Providers, which included:

- Emergency Medical Technicians (EMT's) 1934
- EMT-Intermediates 54
- Paramedics 376

As of 01 July 2011 there are 2406 Active Providers, of which 1236 (51.37%) have demographic information entered into the certification database. There are a total of 23 states represented. The top 5 states are;

- Maryland 52.99%
- District of Columbia 23.38%
- Virginia 10.84%
- Pennsylvania 6.31%
- New Jersey 1.21%

EMS Educational Institutions

The EMS educational institutions within the District of Columbia strive to increase the chances of survival of those receiving pre-hospital care, by providing current, high-quality educational programs for emergency health-care professionals and other emergency response providers.

These institutions follow the Department of Transportation's (DOT), National Standard Curriculum for the EMS certification. Over the course of the next several years, the National Standard Curriculum will be phased out and replaced by the new National Education Standards.

There are currently six certified EMS Educational Institutions in the District of Columbia:

- DC Fire & EMS Department
- East Coast EMS
- Georgetown University
- George Washington University Emergency Health Services Program
- Washington Hospital Center EMS Education
- Westlink Career Center

Comfort Care Order—Do Not Resuscitate Program

The Comfort Care Order (CCO) program, allows patients diagnosed with specific medical conditions to express their wishes regarding end of life resuscitation in pre/post-hospital settings. Unless the order has been revoked, EMS personnel honor the rights of a CCO patient by not resuscitating, when responding to calls for cardiac or respiratory arrest. The District has received no complaints of wrongful resuscitations.

During 2011, there has been an increase in the number of CCO forms distributed and returned, this trend is expected to continue.

	2010	2011*
CCO Forms Distributed	1660	2422
CCO Forms Returned	52	146

**As of 18 July 2011*

The EMS Division is currently working to make adjustments in the CCO program to allow the implementation of a more user friendly, web-based system. This will require making adjustments to the current legislation that will allow a transition from a paper-based form to a web or electronic based system.

District EMS Communications Systems

9-1-1 System
The Office of Unified Communications (OUC) serves as the District of Columbia's Public Safety Answering Point (PSAP) for all 9-1-1 calls. Trained operators answer calls, those that require a fire or emergency medical response are immediately transferred to dispatchers within the call center.

The District's Motorola SmartZone 4.1 System—Simulcast Trunked Radio Network, comprises nearly one dozen radio towers connected by a computerized master controller that contains the master radio database, which is the primary point for control of audio paths within the network. Individual tower sites can function independently and communicate with the master controller, providing first responders with the solid communications they need.

This highly specialized system remotely monitors and alerts fire stations. The system also monitors itself by evaluating and reporting the status of the radio towers supporting operational communications.

University-Based Systems
Each of the University Based EMS systems operates and maintains their own communications system, operated by on-campus security force. Additionally, these services are able to communicate with the DC FEMS via radio.

Commercial Ambulance Systems
Each commercial ambulance service operates and maintains their own communication system designed to meet their specific needs.

District Trauma System

The District of Columbia is proud to be the home of the Regional Pediatric Trauma and Burn Centers as well as several Adult Trauma Centers. These centers afford the EMS system and their patients some of the best trauma care available in the nation.

In 2010, the District began efforts to improve the overall trauma care system. Improvement efforts included:

- A review and update of the District's current trauma plan and how it interacts with regulatory processes.
- An invitation to the American College of Surgeons Committee on Trauma to assess the current trauma system and provide recommendations for improvement.
- The purchase of the Trauma Registry software, which would allow DOH to compare its trauma systems to other trauma systems across the country and aggregate data from the hospitals providing trauma care.
- Creation of a better system of identifying the capabilities and capacity of the current trauma system.
- Development of a hospital trauma care capabilities self-assessment tool.

District EMS and Emergency Management

The EMS Division of HEPRA at DOH plays an important role in emergency management in the District through active involvement in various special events, including Presidential Inaugurations, July 4th and the State of Union Address. In addition, to providing support for major accidents and disasters.

The Health Emergency Coordination Center (HECC)
When a major incident occurs that can affect public health in the District, the HECC becomes the focal point of all medical information collection and sharing. The information provided to the HECC by local hospitals helps to maintain a more accurate available bed count, allowing EMS responders to better match the patient need to the hospital's bed availability.

The HECC helps coordinate medical resources and becomes a major medical resource for DOH's sister agency, the DC Homeland Security Emergency Management Agency (HSEMA). The HECC can interact with our state partners in Maryland and Virginia, allowing us to collate available bed status for the National Capital Region.

The HECC also interacts with our Federal partners, the US Department of Health and Human Services (HHS) and Joint Task Force National Capital Region Medical (JTF CapMed). In the event of a major incident involving numerous casualties, these partnerships would be critical in providing proper treatment and transporting victims to the appropriate care facilities.

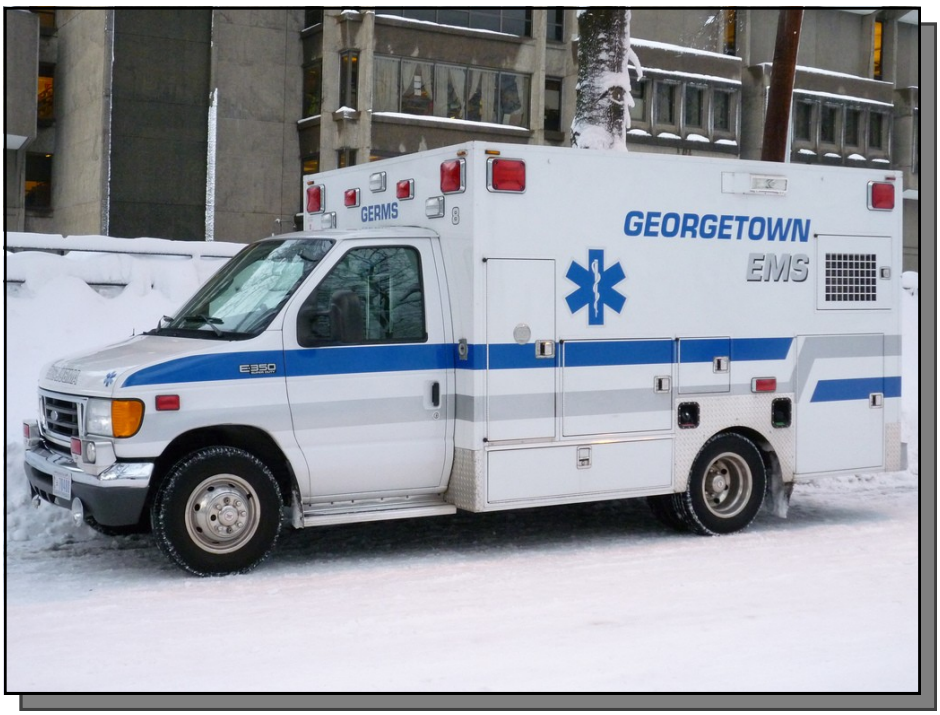
In addition, DOH works with various hospitals through the District of Columbia Emergency Healthcare Coalition (DC EHC), who maintains a notification center to alert the hospitals when bed counts are needed. The DC EHC also developed the Healthcare Information System (HIS), which tracks available beds at the local hospitals. The system can post personnel or equipment needs during major events for various health care facilities, assisting with mutual aid sharing of resources. The HIS is compliant with the standards set by HHS's Hospital Available Beds for Emergencies and Disasters (HAvBED) program.

District EMS and Emergency Management

The DC Emergency Healthcare Coalition is a facilitating organization, serving to support healthcare organization response to emergencies and disasters of all types including mass casualty traumatic incidents. The coalition is supported through grant funding provided by DOH.

The Coalition maintains a response capability through the Coalition Notification Center (CNC) and the Coalition Duty Officer. The CNC is staffed 24-hours a day, seven days a week to provide immediate assistance to DOH and other District healthcare facilities during an emergency.

The CNC sends out radio messaging to individual healthcare organizations or contacts the Duty Officer who can send messages to personal devices. The CNC and the Duty Officers act as liaisons between DOH and various hospitals, clinics and skilled nursing facilities in the District.



2010, A Year of Transition

2010 was a year of transition for EMS in the District. The largest being the NREMT certification requirement and the transition from the National Standard Curriculum for EMT's and Paramedics to the new National Education Standards.

The EMS Division did much work through legislation, regulation and policy changes that would lay the foundation required to improve the overall quality of EMS in the District.

Legislation

In 2009 the EMS Act of 2008 was passed. This landmark legislation firmly placed the oversight of emergency medical services under the DOH. The passage of the legislation marked a significant milestone in the ongoing improvement of EMS in the District.

Regulations

The EMS Division staff spent much of 2010 creating and developing the rules and regulations that will guide EMS in the District into the future. The proposed regulations covered numerous aspects of EMS in the District. The adoption of the new rules and regulations, along with the already passed EMS Act, will lay a firm foundation for EMS to grow and build upon in the future.

Policies

To bridge the gap between the passing of the legislation and the issuance of the new regulations, the EMS Division adopted a series of policies. These policies covered a variety of EMS issues, including:

- A requirement for all EMS ambulance services to submit a Quality Assurance and Improvement Plan and annual report.
- Requirements for transporting patients in the District.
- An EMS Providers Scope of Practice.
- Ambulance Interior Climate Standards.
- Standards for the Certification of EMS Educational Institutions and Standards for EMS Instructors.

The Adoption of the National EMS Scope of Practice

In November of 2010, DOH established a District Scope of Practice Policy for all EMS Providers, based on the National Scope of Practice (NSOP) model. With the adoption of the NSOP, the District now has two new EMS certifications: the Emergency Medical Responder (previously known as First Responder) and the Advanced EMT (a new national certification). The new certifications offer EMS ambulance services a wider variety of pre-hospital care provider levels, allowing them to better serve their patients. The District was one of the first jurisdictions to adopt the new model.

In keeping with the NSOP model, the District adopted the four EMS provider levels, to include:

- Emergency Medical Responder (EMR)
- Emergency Medical Technician (EMT)
- Advanced EMT (AEMT)
- Paramedic

The District will maintain the EMT- Intermediate certification level (also known as the I-99) until March 31, 2019 when it is phased out by the National Registry of Emergency Medical Technicians.

Transition to the New National Education Standards

In 2010 the National Highway Traffic Safety Administration (NHTSA) released the National Education Standards (NES), and with its release began the process of transitioning from the National Standard Curriculum to the NES. The NES moves the profession of EMS towards a more academically oriented educational process.

In the coming months the EMS Division will be working with the educational institutions to provide them with the tools they need to make the transition. As part of this transition a new process for approving courses and curricula is being developed to meet the requirements of the new standard.

Transition to Quality Improvement

2010 marked the first year that EMS ambulance services were required to submit a quality assurance and improvement plan to the DOH. All ambulance services were also required to prepare an annual report outlining their quality improvement activities. It is commendable to see the commitment to quality that the District EMS agencies have displayed in their reports.

Types of Reviews
Every EMS ambulance service reported that they were engaged in retrospective patient care chart reviews. For some of the smaller agencies, their call volume allows for 100% reviews, while the larger agencies perform a 100% review of specific types of incidents as well as a smaller percentage of randomized reviews.

The use of computer technology has dramatically improved the ability of the ambulance services to perform and track these reviews, while allowing services to track the impact of any changes made in their operations. Tracking the impact of these changes, whether positive or negative, is the critical to any successful quality improvement program. All District ambulance services indicated that they were utilizing tracking methods.

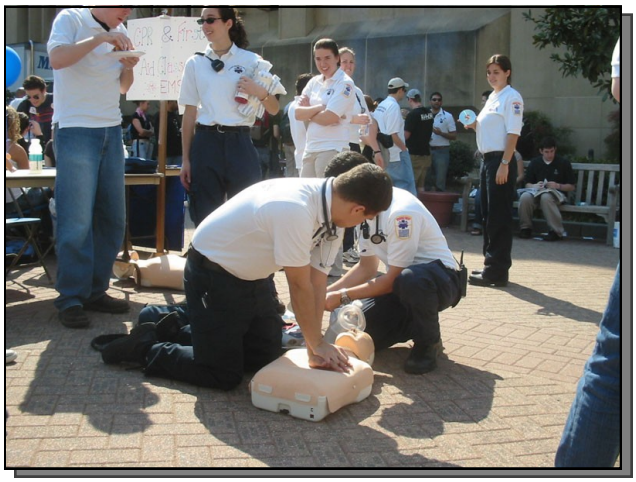
Feedback is Key
Several of the services indicated they have regular call review sessions, where incidents are reviewed and discussed with providers. These sessions are not only beneficial from a review standpoint, but also make excellent learning opportunities. Nearly all of the organizations indicated that when they saw specific trends, they would change or update their training services. Training was conducted in various settings including, in the field and in classrooms. Feedback is key in improving the care patients receive, and all of the services indicated that some type of feedback was sent to providers.

More than Just Run Sheet Reviews
One service had a unique quality improvement intervention. Team Critical Care (TCC) reported that they were receiving requests for services from various hospitals, but when the crews arrived on the scene, they found the level of service requested was disproportionate to the level of care required by the patient. Upon this discovery, they modified their intake form and developed "cheat sheets" for the hospitals that could be placed on the hospital's intranet system and in the emergency departments. Personnel from TCC also spent time on hospital floors to educate staff and answer questions about the levels of care available in EMS. Since performing these quality interventions, they have seen measurable improvement in getting the appropriate level of care to the hospital.

A common thread throughout the reports received was that the quality review process lead to a review of protocols and brought about changes.

Continuous Quality Improvement

All of the services have seen improvement in patient care as part of their individual quality improvement programs. Such programs will continue to drive EMS in the District to improve the quality of care provided to all patients.



EMS Technology Transition

In the past year the District has seen noteworthy improvement in the use of technology in the EMS Division. The creation and implementation of the District Emergency Network Information System (DENIS) has brought about important improvements in the way the EMS Division serves providers. The individual certification database has automated a significant amount of the certification process.

DENIS contains various modules that help the EMS Division to streamline functions and accurately track data, enabling us to provide quality service in a timely function. The modules include, EMS Training Center and the Ambulance Service Providers certifications processing; incident reports and CCO program tracking; and collating bed counts from our partners in Maryland and Virginia, giving us a good view of bed status across the immediate National Capitol Region.

The development of DENIS continues to evolve, as it expands to keep track of all EMS vehicles being used and training courses being taught in the District. In addition, the system is being expanded to perform tracking of the various types of patients treated during special events.

2011, Looking Forward

While much was accomplished in 2010, there is still much that needs to be done in the months and years ahead. EMS, like all of the medical fields, is constantly evolving and changing to meet the needs of patients.

2011 initiatives in progress and forthcoming include:

- **Trauma Center Designation**
  Work is underway to develop the guidelines for hospital trauma center designation. The designation process is part of the larger mass casualty and care planning process.

- **Citywide Emergency Planning Exercise**
  In 2011, the District is planning on a citywide emergency exercise. This exercise will bring together all components of the health care system, including EMS. The exercise will test how well the District is able to respond to a large-scale incident. Lessons learned from the exercise will be used to improve the emergency response plans of numerous agencies within the District, resulting in a better response to real world incidents.

- **9-1-1 Utilization**
  When a medical emergency does occur, EMS is typically notified through the 9-1-1 system. In 2011, there will be a focus on the utilization of the 9-1-1 system for assistance, and how to improve the overall efficiency. A call to 9-1-1 puts the use of equipment and health care personnel into action; they can provide better assistance and care if the system is better utilized.

- **Increased Injury Prevention Education**
  Many times EMS is thought of as those who respond to the call after someone gets hurt. However, EMS also has a responsibility in preventing injuries, in 2011 look for the DOH's promotion of healthy living and injury prevention as part of its "Live Well DC!" campaign. Visit DOH's web site (**http://doh.dc.gov**) for more information about "Live Well DC!" and to view the Department's report on the preventable causes of death in the District.

Acronym Key

AED — Automated External Defibrillator

ALS —Advanced Life Support

BLS — Basic Life Support

CCO — Comfort Care Order

CNC — Coalition Notification Center

CPR — Cardiopulmonary Resuscitation

DC FEMS — DC Fire & EMS Department

DC EHC — DC Emergency Healthcare Coalition

DENIS — District Emergency Network Information System

DOH — Department of Health

EMD — Emergency Medical Dispatcher

EMeRG — Emergency Medical Response Group at George Washington University

EMR — Emergency Medical Responder

EMS — Emergency Medical Service

EMT — Emergency Medical Technician

GERMS — Georgetown Emergency Response Medical Service

HAvBED — Hospital Available Beds for Emergencies and Disasters

HECC — Health Emergency Coordination Center

HEPRA — Health Emergency Preparedness and Response Administration

HIS — Healthcare Information System

HHS — Department of Health and Human Services

JTF CapMed — Joint Task Force National Capital Region Medical

NREMT — National Registry of Emergency Medical Technicians

MRC — Medical Reserve Corps

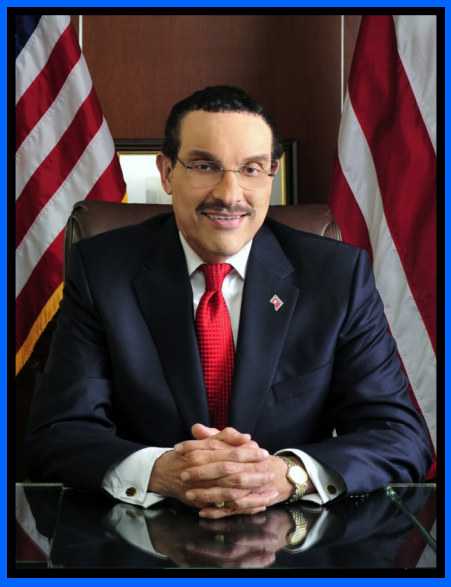
NES — National Education Standards

NSOP — National Scope of Practice

OUC — Office of Unified Communications

PSAP — Public Safety Answering Point

TCC — Team Critical Care



Mayor of the District of Columbia, Vincent C. Gray

Emergency medical services (EMS) of the future will be community-based health management that is fully integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to treatment of chronic conditions and community health monitoring. This new entity will be developed from redistribution of existing health care resources and will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net.

EMS Agenda for the Future
National Highway Traffic Safety Administration
August 1996

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Government of the District of Columbia
Vincent C. Gray, Mayor

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